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Inspection Report

State of Utah

Department of Natural Resources

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

OGM	Priscilla Burton Environmental Scientist III
OGM	Joe Helfrich Environmental Scientist III
OGM	Ingrid Wieser Environmental Scientist II
Company	Dan Guy
Company	John M. Walters

Permit Number:	C0070022
Inspection Type:	TECHNICAL
Inspection Date:	Monday, November 23, 2009
Start Date/Time:	11/23/2009 10:00:00 AM
End Date/Time:	11/23/2009 11:30:00 AM
Last Inspection:	Thursday, November 19, 2009

Inspector: Priscilla Burton, Environmental Scientist III

Weather: sun breezy 40 F

InspectionID Report Number: 2208

Accepted by: jhelfric
12/7/2009

Permitee: **SAVAGE SERVICES CORP**
Operator: **SAVAGE SERVICES CORP**
Site: **SAVAGE COAL TERMINAL**
Address: **6340 S 3000 E STE 600, SALT LAKE CITY UT 84121**
County: **CARBON**
Permit Type: **PERMANENT COAL PROGRAM**
Permit Status: **ACTIVE**

Current Acreages

153.46	Total Permitted
132.50	Total Disturbed
	Phase I
	Phase II
	Phase III

Mineral Ownership

- ☐ Federal
- ☐ State
- ☐ County
- ☐ Fee
- ☑ Other

Types of Operations

- ☑ Underground
- ☑ Surface
- ☑ Loadout
- ☐ Processing
- ☐ Reprocessing

Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

Observed vegetation (or lack thereof) growing on 2006 settling pond topsoil and subsoil stockpiles in comparison with the (2002) truck loadout topsoil/subsoil pile and in connection with Task 3421 (revision of Table 5-1 Temporary Seed Mix).

Inspector's Signature: Priscilla Burton **Date** Tuesday, November 24, 2009

Priscilla Burton, Environmental Scientist III
Inspector ID Number: 37

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining.

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REVIEW OF PERMIT, PERFORMANCE STANDARDS ,PERMIT CONDITION REQUIREMENTS

1. *Substantiate the elements on this inspection by checking the appropriate performance standard.*
   a. *For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.*
   b. *For PARTIAL inspections check only the elements evaluated.*
2. *Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.*
3. *Reference any narratives written in conjunction with this inspection at the appropriate performace standard listed below.*
4. *Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.*

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	☑	☐	☑	☐
2. Signs and Markers	☐	☐	☐	☐
3. Topsoil	☑	☐	☑	☐
4.a Hydrologic Balance: Diversions	☐	☐	☐	☐
4.b Hydrologic Balance: Sediment Ponds and Impoundments	☐	☐	☐	☐
4.c Hydrologic Balance: Other Sediment Control Measures	☐	☐	☐	☐
4.d Hydrologic Balance: Water Monitoring	☐	☐	☐	☐
4.e Hydrologic Balance: Effluent Limitations	☐	☐	☐	☐
5. Explosives	☐	☐	☐	☐
6. Disposal of Excess Spoil, Fills, Benches	☐	☐	☐	☐
7. Coal Mine Waste, Refuse Piles, Impoundments	☐	☐	☐	☐
8. Noncoal Waste	☐	☐	☐	☐
9. Protection of Fish, Wildlife and Related Environmental Issues	☐	☐	☐	☐
10. Slides and Other Damage	☐	☐	☐	☐
11. Contemporaneous Reclamation	☐	☐	☐	☐
12. Backfilling And Grading	☐	☐	☐	☐
13. Revegetation	☑	☐	☑	☐
14. Subsidence Control	☐	☐	☐	☐
15. Cessation of Operations	☐	☐	☐	☐
16.a Roads: Construction, Maintenance, Surfacing	☐	☐	☐	☐
16.b Roads: Drainage Controls	☐	☐	☐	☐
17. Other Transportation Facilities	☐	☐	☐	☐
18. Support Facilities, Utility Installations	☐	☐	☐	☐
19. AVS Check	☐	☐	☐	☐
20. Air Quality Permit	☐	☐	☐	☐
21. Bonding and Insurance	☐	☐	☐	☐
22. Other	☐	☐	☐	☐

1. Permits, Change, Transfer, Renewal, Sale

An amendment to revise the Temporary Seed Mix, Table 5-1 is under review as Task 3421. Topsoil and subsoil from the settling pond expansion was salvaged, stockpiled and seeded in the fall of 2006. After 3 years the settling pond expansion subsoil stockpile has numerous saltbush shrubs in the bottom of deep pocks, but the topsoil pile is devoid of vegetation. Reseeding with a simpler, new mix that consists of two wheatgrass species, yellow sweetclover and alfalfa has been proposed.

3. Topsoil

Billings Silty Clay, eroded soils with extreme SAR values were excluded from salvage during the settling pond construction (represented by SP3 on baseline soils Map 2-4). Only the soils represented by SP1 and SP2 (Killpack and Billings Silty Clay, moist) were salvaged from the location of the settling ponds (mapping units KMB and BIBM listed on Plate 2-4). Based upon the laboratory analysis in App. 2-3, the average SAR value of the salvaged topsoils should be 4.65. The average SAR value of the salvaged subsoils should be 13.04.

Twelve inches of topsoil and twelve inches of subsoil from the settling pond expansion was salvaged, stockpiled and seeded in the fall of 2006. Table 5-1 Temporary seed mix was applied along with potassium fertilizer and two biological enhancements described in Chap 2, pp. 28 and 29. After 3 years the settling pond expansion subsoil stockpile has numerous saltbush shrubs in the bottom of deep pocks, but the topsoil pile is devoid of vegetation.

The same temporary seed mix was applied to the topsoil/subsoil stockpile created in 2002 from the truck loadout expansion. After 7 years, the growth on the loadout expansion stockpile is showing diversity in life form and adequate coverage. The temporary mix was also used last year on a berm behind the pumphouse and after one year there are winterfat and atriplex coming up in this location.

Possible treatments for the settling pond topsoil pile were discussed as follows:
1) reducing pock depth and loosening soil surface with a trackhoe prior to seeding
2) applying the supplemental mix and using trackhoe to ensure soil/seed contact
3) using a layer of gravel as a soil mulch (desert pavement)
4) erecting tall silt fences to provide relief from the late afternoon summer sun
The first two concepts will likely be employed on the settling pond topsoil stockpile, but not on the subsoil pile which has a good start on shrub growth in the bottom of the pocks.

13. Revegetation

The vegetation established on the 2002 truck loadout topsoil pile included Fourwing saltbush, winterfat, greasewood, indian ricegrass, crested wheatgrass and others. Very little vegetation has established on the 2006 settling pond topsoil and subsoil piles. The topsoil pile vegetation was limited to a few weeds within the pocks. The subsoil pile had slightly better vegetation established which was limited to fourwing saltbush and winterfat. It is recommended that the operator add fourwing saltbush and winterfat to the proposed seedmix because it seems to be establishing on the subsoil pile.